

NOTE ON THE WALL-EYED POLLACK (*POLLACHIUS CHALCOGRAMMUS FUCENSIS*) OF PUGET SOUND.

BY

DAVID S. JORDAN AND CHARLES H. GILBERT.

Mr. David H. Hume, a fisherman of Tacoma, Wash., wrote to us recently asking for information concerning a fish which he called "Wall-eyed cod," and which has appeared in abundance in Puget Sound about Seattle. At our request, Mr. Hume sent a number of specimens of the fish to the museum of the Leland Stanford, Jr., University, from which one has been sent to the U. S. National Museum.

The wall eyed cod proves to be specifically identical with the common pollack of Alaska, *Pollachius chalcogrammus*. These specimens from Seattle, however, differ notably from any which we have seen from Alaska, in the fact that the fins are all lower, and that there are fewer rays than in the Alaskan specimens, and that the color is nearly uniformly sooty, with the dark markings of the Alaskan fish either entirely obliterated or very faintly shown.

These characters would seem at first sight to indicate specific difference; but as we find more or less variation, it is probably safe to regard the Puget Sound fish as representing a southern variety, which may be called *Pollachius chalcogrammus fucensis*.

In the fish from Tacoma the color is nearly plain sooty, with no cross streaks, and with generally only a trace of a pale lateral streak along the side; on the head are some diffuse dark spots; the fins are all dusky. The dorsal fins are low, the longest ray of the first dorsal being from  $2\frac{1}{5}$  to  $2\frac{1}{3}$  in head; the pectoral is short, from  $1\frac{1}{2}$  to  $1\frac{2}{3}$  in head; caudal is subtruncate, its lobes scarcely acute. The fin rays in four specimens are as follows: (1) D. 10-15-17; (2) D. 11-15-16; (3) D. 10-14-16; (4) D. 12-13-17; the average of all specimens, D. 11-14-16. Anal fins, (1) A. 18-16; (2) A. 19-18; (3) A. 16-19; (4) A. 19-19; the average of all specimens, A.  $17\frac{1}{2}$ -18. The band of teeth in the premaxillary is wider than in the Alaskan specimens, and the band is widened at the anterior end.

In the true *chalcogrammus* from Alaska, taking specimens of about the same size, we find that the body is more elongated, the nose sharper, the eyes a little larger, the premaxillary band of teeth narrower and narrowed in front toward the median line, the coloration is paler, the

sides being marked with peculiar, short, irregular, vertical, dark cross streaks and a more or less obscure, pale, lateral streak irregular in form. The fins are all higher, the first dorsal averaging  $1\frac{1}{2}$  in head, the pectoral  $1\frac{1}{2}$  to  $1\frac{2}{3}$ ; the caudal is distinctly forked with sharp lobes. The fin rays of three specimens are, (1) D. 14-17-19; (2) D. 13-15-19; (3) D. 13-16-20; the average of all, D.  $13\frac{1}{2}$ -16- $19\frac{1}{2}$ . Anal rays. (1) A. 20-20; (2) A. 19-20; (3) A. 19-20; average of all,  $19\frac{1}{2}$ -20 $\frac{1}{2}$ .